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RHODIUM-CATALYZED REARRANGEMENT OF 2-FURYL TETHERED 1-TOSYL-1,2,3-TRIAZOLES*

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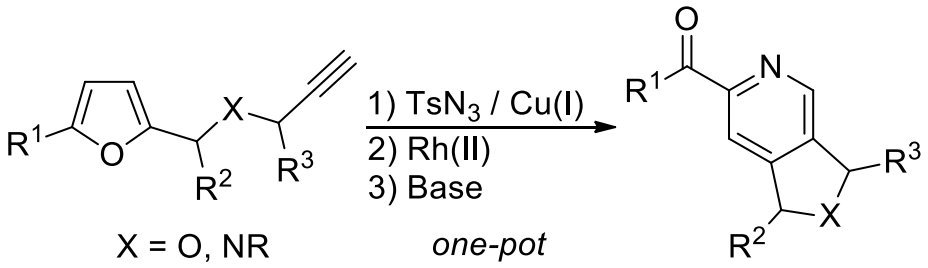
Intermolecular reaction of alkylfurans with 1-sulfonyl-1,2,3-triazoles under rhodium catalysis leads to electrophilic addition of iminocarbene species to a furan ring followed by transannulation to form pyrrole derivatives [1]. At the same time, intramolecular reaction of rhodium-iminocarbenes with furans have been described to provide only products of electrophilic heteroaromatic substitution [2, 3].

We discovered that intramolecular reaction of furans with triazole-derived azavinyl carbenoids could lead to substituted pyridines through sequential dearomatization/ring-opeinging/electrocyclization/aromatization.



Optimization and mechanistic details as well as the scope, limitations of the developed synthetic protocol toward substituted pyridine and synthetic utility of the obtained products will be discussed [4].

References

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